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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,101	09/28/2000	Yuji Yamada	7217/62597	9108

7590 06/22/2004

Jay H. Maioli
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, NY 10036

EXAMINER

MICHALSKI, JUSTIN I

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 06/22/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,101

Applicant(s)

YAMADA ET AL.

Examiner

Justin Michalski

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/6/2004 has been entered.

Claim Objections

2. Claim 1 objected to because of the following informalities: "n 1" in line 4 of claim 1 is unclear. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo et al. (Hereinafter "Matsuo") (US Patent 6,269,166) in view of Yamada et al. (Hereinafter "Yamada") (US Patent 6,614,912).

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Regarding Claim 1, Matsuo discloses an audio processing apparatus (Figure 34) comprising: converting means (amplifiers 58, 59, and filters 54-57) for converting n channel (where n is a positive integral number: $n \geq 1$) audio signals supplied from at least one signal source into two channel output signals (Figure 34 discloses original signal converted into 5 audio signals and converted into left and right inputs to filters 36 and 38); first left and right correcting filter means (Filters 36 and 38) to which left and right signals converted by said converting means are respectively supplied, said first left and right correcting filter means having respective first left and right coefficients for correcting a difference of a sense of hearing due to a difference of a sense of hearing between right and left characteristics of right and left speaker units of a first pair of headphones (Matsuo discloses providing a three-dimensional (i.e. difference in right and left) acoustic effect to a listener via a headphone) (Column 1, lines 11-14), wherein an inverse transfer characteristic of the right channel (Filter 38) is superimposed as impulse response data on a time area of the first right correcting filter means and an inverse transfer characteristic of the left channel (Filter 36) is superimposed as impulse response data on a time area of the first left correcting filter means (Matsuo discloses inverse transfer characteristics of acoustic space paths and filters having coefficients that represent the impulse response of the inverse transfer characteristic) (Column 10, lines 37-43); and an output section connected for supplying a pair of output signals respectively to the right and left speaker units of the first headphones (Figure 34 discloses outputs of filters 36 and 38 are connected to left and right speakers of headphones).

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Matsuo does not disclose a selector means for selecting outputs of a first or second left and right correcting filter means or a second headphone comprising the same limitations as the first headphone except with different left and right coefficients.

Yamada also discloses an audio processing apparatus comprising headphones (Figure 1, reference 81) and left and right correcting means (references 3, 5, 6, and 91-94). Yamada discloses two headphones (headphone 80, Col. 7, lines 35-36) may be used with processing preformed independently for each headphone, i.e. different correcting coefficients (Column 7, lines 38-46). Yamada further discloses selector means (Connectors 31 and 32) for selecting outputs of a first left and right correcting filter means (connector 31, selecting 1st headphone filters) or outputs of said second left and right correcting filter means (connector 32, selecting 2nd headphone filters). Yamada discloses that connectors 31 and 32 allow a user to use a headphone without the filter coefficients of the other headphone affecting the output of the headphone being used (Column 7, lines 38-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use selector means for selecting outputs of a first or second correcting means in order to isolate the proper corrective filter means to the headset in use.

Regarding Claim 8, Matsuo further discloses the audio processing apparatus (Figure 10 corresponding to Figure 34) where one signal source is composed of five positions: left front (signal L); right front (signal R); center front (signal C); left rear (Signal SL); and right rear (Signal SR).

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Douglas (US Patent Application Publication 2001/0050993) discloses an audio processing apparatus comprising a selector switch (Figure 3, reference 25) which is used to select between output filtering for two different types of headphones. (Previously made of record in action mailed 8/22/2003)

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM


FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER